

CLAIMS:

1. In a focus ring for use in a plasma chamber, the improvement comprising:
a minor side; and
a major side, wherein the minor side has a smaller width than the major side.

2. The focus ring as claimed in claim 1, wherein the focus ring comprises at least one of quartz, silicon, silicon carbide, carbon, and a ceramic.

3. The focus ring as claimed in claim 1, wherein the focus ring comprises a dielectric material.

4. The focus ring as claimed in claim 1, wherein the focus ring comprises a partially metal structure.

5. The focus ring as claimed in claim 1, wherein the minor side has a radial width of approximately 0.5 to 2.5 cm and the major side has a radial width of approximately 2.5 to 10 cm.

6. The focus ring as claimed in claim 1, wherein the focus ring comprises a plurality of holes.

7. The focus ring as claimed in claim 6, wherein the major side comprises holes larger than holes in the minor side.

8. The focus ring as claimed in claim 1, further comprising mounting points for connecting the focus ring to a chuck assembly.

9. The focus ring as claimed in claim 8, wherein the mounting points comprise a plurality of holes.

10. The focus ring as claimed in claim 1, further comprising a rotating attachment point for rotating the focus ring about a centerline of a chuck assembly.

11. A plasma processing system, comprising:

a process chamber;
a chuck assembly for holding a substrate in the process chamber; and
an asymmetrical focus ring coupled to the chuck assembly, the asymmetrical focus ring having a minor side and a major side, wherein the minor side has a smaller width than the major side.

12. The plasma processing system as claimed in claim 11, wherein the focus ring comprises at least one of quartz, silicon, silicon carbide, carbon, and a ceramic.

13. The plasma processing system as claimed in claim 11, wherein the focus ring comprises a dielectric material.

14. The plasma processing system as claimed in claim 11, wherein the focus ring comprises a partially metal structure.

15. The plasma processing system as claimed in claim 11, wherein the minor side has a radial width of approximately 0.5 to 2.5 cm and the major side has a radial width of approximately 2.5 to 10 cm.

16. The plasma processing system as claimed in claim 11, wherein the focus ring further comprises a plurality of holes.

17. The plasma processing system as claimed in claim 16, wherein the major side comprises holes larger than holes in the minor side.

18. The plasma processing system as claimed in claim 11, further comprising a pumping baffle.

19. The plasma processing system as claimed in claim 18, wherein the pumping baffle comprises a plurality of holes.

20. The plasma processing system as claimed in claim 11, wherein the focus ring further comprises a rotating attachment point for rotating the focus ring about a centerline of a chuck assembly.

21. In a focus ring for use in a plasma chamber, the improvement comprising:
 - a first side;
 - a second side opposite said first side; and
 - a plurality of holes in the focus ring, wherein holes of the plurality of holes closer to the first side are larger than holes of the plurality of holes closer to the second side.
22. The focus ring as claimed in Claim 21, wherein sizes of the plurality of holes are monotonically increasing from the second side to the first side.